

WHAT IS CLAIMED IS

- 5                   1. An authentication apparatus  
comprising:  
        an acquiring section to acquire first feature  
information;  
10          an extracting section to extract, from a  
database which registers feature information in  
correspondence with each user, a user corresponding  
to feature information having a degree of matching  
exceeding a predetermined value with respect to the  
15 first feature information; and  
        a registering section to register the first  
feature information in the database together with  
accessory information related to said feature  
information.  
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2. The authentication apparatus as  
25 claimed in claim 1, further comprising:  
        a control section to output a message urging  
changing of parameters indicating feature  
information reading conditions and re-reading of the  
first feature information if a number of the feature  
30 information having the degree of matching exceeding  
the predetermined value exceeds a specific value, so  
as to acquire the re-read first feature information  
by said acquiring section.

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3. The authentication apparatus as claimed in claim 1, further comprising:

5 a control section to urge the user to read second feature information and acquire the read second feature information by said acquiring section if a number of the feature information having the degree of matching exceeding the predetermined value exceeds a specific value.

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4. The authentication apparatus as claimed in claim 3, wherein said registering section registers the second feature information in the database.

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5. The authentication apparatus as claimed in claim 3, wherein the first feature information and the second feature information are the same kind of feature information or mutually different kinds of feature information.

30 6. An authentication apparatus comprising:

an acquiring section to acquire personal identification information and feature information of a user;

35 a obtaining section to read, from a database having registered feature information in correspondence with at least personal identification

information, registered feature information and accessory information respectively corresponding to the acquired personal identification information, and to obtain a degree of matching of the acquired  
5 feature information and the registered feature information read from the database; and

a confirming section to confirm the user identified by the acquired personal identification information if a degree of matching of the  
10 registered feature information read from the database and each registered feature information corresponding to personal identification information indicated by the accessory information read from the database is smaller than the degree of matching  
15 obtained by said obtaining section.

20 7. An authentication apparatus comprising:

an acquiring section to acquire first and second feature information of a user;

an extracting section to extract, from a  
25 database which registers first and second registered feature information together with accessory information related to predetermined users for which a degree of matching of the first registered feature information exceeds a predetermined value, specific  
30 accessory information corresponding to the first registered feature information having a degree of matching which is a maximum value with respect to the acquired first feature information; and

a confirming section to confirm the user if a  
35 degree of matching of the acquired second feature information and the second registered feature information registered in the database in

correspondence with the first registered feature  
information having the degree of matching which is  
the maximum value is greater than a degree of  
matching of the acquired second feature information  
5 and the second registered feature information  
corresponding to the specific accessory information.

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8. The authentication apparatus as  
claimed in claim 7, wherein the first feature  
information and the second feature information are  
the same kind of feature information or mutually  
15 different kinds of feature information.

20 9. A computer-readable storage medium  
which stores a computer program for causing a  
computer to carry out an authentication process,  
said computer program comprising:  
an acquiring procedure causing the computer to  
25 acquire first feature information;  
an extracting procedure causing the computer to  
extract, from a database which registers feature  
information in correspondence with each user, a user  
corresponding to feature information having a degree  
30 of matching exceeding a predetermined value with  
respect to the first feature information; and  
a registering procedure causing the computer to  
register the first feature information in the  
database together with accessory information related  
35 to said feature information.

10. The computer-readable storage medium as claimed in claim 9, wherein the computer program further comprises:

5 a control procedure causing the computer to output a message urging changing of parameters indicating feature information reading conditions and re-reading of the first feature information if a number of the feature information having the degree of matching exceeding the predetermined value  
10 exceeds a specific value, so as to acquire the re-read first feature information by said acquiring section.

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11. The computer-readable storage medium as claimed in claim 9, wherein the computer program further comprises:

20 a control procedure causing the computer to urge the user to read second feature information and acquire the read second feature information by said acquiring section if a number of the feature information having the degree of matching exceeding  
25 the predetermined value exceeds a specific value.

30 12. The computer-readable storage medium as claimed in claim 11, wherein said registering procedure causes the computer to register the second feature information in the database.

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13. The computer-readable storage medium  
as claimed in claim 11, wherein the first feature  
information and the second feature information are  
the same kind of feature information or mutually  
5 different kinds of feature information.

10 14. A computer-readable storage medium  
which stores a computer program for causing a  
computer to carry out an authentication process,  
said computer program comprising:  
an acquiring procedure causing the computer to  
15 acquire personal identification information and  
feature information of a user;  
a obtaining procedure causing the computer to  
read, from a database having registered feature  
information in correspondence with at least personal  
20 identification information, registered feature  
information and accessory information respectively  
corresponding to the acquired personal  
identification information, and to obtain a degree  
of matching of the acquired feature information and  
25 the registered feature information read from the  
database; and  
a confirming procedure causing the computer to  
confirm the user identified by the acquired personal  
identification information if a degree of matching  
30 of the registered feature information read from the  
database and each registered feature information  
corresponding to personal identification information  
indicated by the accessory information read from the  
database is smaller than the degree of matching  
35 obtained by said obtaining section.

15. A computer-readable storage medium which stores a computer program for causing a computer to carry out an authentication process, said computer program comprising:

5       an acquiring procedure causing the computer to acquire first and second feature information of a user;

          an extracting procedure causing the computer to extract, from a database which registers first and  
10       second registered feature information together with accessory information related to predetermined users for which a degree of matching of the first registered feature information exceeds a  
15       predetermined value, specific accessory information corresponding to the first registered feature information having a degree of matching which is a maximum value with respect to the acquired first feature information; and

          a confirming procedure causing the computer to  
20       confirm the user if a degree of matching of the acquired second feature information and the second registered feature information registered in the database in correspondence with the first registered feature information having the degree of matching  
25       which is the maximum value is greater than a degree of matching of the acquired second feature information and the second registered feature information corresponding to the specific accessory information.

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16. The computer-readable storage medium  
35       as claimed in claim 15, wherein the first feature information and the second feature information are the same kind of feature information or mutually

different kinds of feature information.

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